HARRY F. SHAW
VIRTUAL
COLLEGE CENTER
FTCC

AutoStereoscopic Visualization Solutions

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Knowledge Transfer Solutions

Knowledge transfer is effectively communicating a collection of knowledge from one place to the next. Regardless if this transfer involves two people, a group of people, institutions or governments , it is all about creating an environment that promotes communication and collaboration to the point it accelerates decision making. Whether this transfer is in the form of procurement, marketing, sales, training or maintenance procedures, knowledge transfer has always been considered to be more than just a communication problem because of the human factor.

Creating motivation in people is sometimes achieved through experience. NavTech employs the use of experiential technology that creates a WOW factor. One of the most recent advances in technology includes Auto Stereoscopic technology. Stereoscopic imaging is any technique capable of recording three-dimensional visual information or creating the illusion of depth in an image. The illusion of depth in a photograph, movie, animation, simulation or other two-dimensional image is created by presenting a slightly different image to each eye. Auto Stereoscopic technology solves the correspondence problem to create meaningful depth information from two images or data source and is able to create 3D without the need for glasses.

The technology is scalable from a small 20" inch display, a 42" LCD or a large way 3D Video wall with many different solutions and permutations in between. NavTech has deployed the Auto Stereoscopic technologies from night clubs to network training events. This WOW experience enhances any current method of transfer to an exciting and interactive experience.

Through various partnerships, **NavTech** is proud to offer the following Autostereoscopic Visualization Solutions:

- 20" 3D Display
- 42" 3D Display
- 9 Screen WOWzone Display
- Digital Signage Distribution System
- Wireless Touch Panel Control

3D Intelligent Display Solution

20" WOW
3D & 2D dual-mode display

WOWvx

20-3D2W01/00
20-3D2W04/00

Exciting personal 3D experience

20" frame-mount and desktop 3D display

Add an extra dimension to your professional application with Philips 3D displays. Based on WOWvx technology, its stunning 3D effect immediately grabs the attention and gives a more entertaining experience to the viewer. This 'magical' appeal attracts the consumer's attention making it ideal for use in digital signage, point-of-sale advertising, games and 3D visualization.

Exciting out-of-screen 3D effects
- Immediately grabs the attention of the viewer

Easy integration
- Slim bezel for easy integration in console

Autostereoscopic lenticular technology
- No need for special 3D glasses
- Multiple users experience 3D at the same time
- Full brightness, full contrast, true color representation

High quality 3D and 2D mode
- 2D high-definition video playback
- Autosensing between 2D and 3D mode

End-to-end system solution
- Integrated intelligent signal processing
- Flexible 3D data format through 2D-plus-depth
- 3D application performance and distribution bandwidth close to 2D

Declipse supported for enhanced viewing experience
- Additional occlusion information
- Enables the 'look around' effect

3D content enabling products (optional)
- Plug-ins for popular 3D animation software available
- WOWvx OpenGL Control
- WOWvx Compositor
- Semi-automated stereoscopic and 2D video to 3D conversion

Product offering
- Frame-mount (20-3D2W01/00)
- Desktop (20-3D2W04/00)

PHILIPS

20-inch 3D Intelligent Display Solution

20-3D2W01/00
20-3D2W04/00

Technical Specifications

Multi-view Lenticular Display
- Autostereoscopic 3D display: 9 view
- 3D Technology: fixed lenticular
- Optimal viewing distance: 80 cm
- Image diameter: 20.1 inch (51 cm)
- Resolution: 1,600 x 1,200 x RGB (UXGA)
- Aspect ratio: 4 : 3
- Display colors: 16.7 M colors
- Brightness: 240 cd/m2
- Contrast: 800:1
- Response time: 8 ms (gray-to-gray)
- Input format: 2D-plus-depth in 3D mode
- Front screen protection: protective glass sheet

Connectivity
- Video input:
  - DVI-D single link
  - 60 Hz, 1600 x 1200 p
- Monitor control via DDC/CI channel; no additional RS232 cable needed
- Power supply: 120 V 60 Hz, 230V 50 Hz
- Power consumption:
  - Normal operation: 59 W
  - Standby: 5 W
- AC switch

Physical Characteristics
- Dimensions(mm): 435(W) x 337(H) x 82(D)
- Weight: 7.5 kg
- Slim bezel: Easy integration in console
- Mounting:
  - Console: 14x M4 mounting points on the 4 sides
  - Desktop: VESA 100x100 on backside

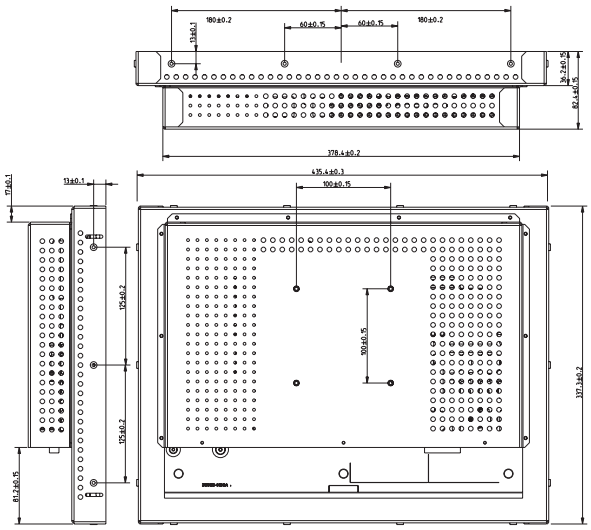
Advanced display signal processing
- Integrated 2D/3D display processing hardware
- 3D data interface
- 2D-plus-depth converted to 9 different views and interwoven into a 3D image
- Rendering is tuned for lenticular optical behavior
- Two modes:
  - 3D rendering mode
  - 2D mode with picture quality improvement

Display Control Tool
The Display Control Tool, running on the PC, offers real-time control of the following monitor functions:
- WOW offset
- WOW factor
- Contrast
- Brightness
- Advanced visualization parameters

3DS Media Player
The 3DS Media Player is an application to play 3D video clips in the 2D-plus-depth format on a PC. The 3DS Media Player ensures that the monitor switches to 3D mode with the appropriate settings.

Packaging
The desktop model (20-3D2W04/00) comes in 3 separate boxes:
- Frame-mount box containing:
  - frame--mount display (20-3D2W01/00)
- Table stand box containing:
  - table stand
  - 4 screws for attachment
- Accessories box containing:
  - cosmetic front
  - 4 screws for attachment
  - DVI cable
  - 3 main cords (USA, EU and UK)
  - display user manual hardcopy
  - CD-ROM with Display Control Tool, 3DS Media Player and 3D sample content

Certification
- CE, cETLus, FCC, C-Tick, CB certificate



Product highlights

3D intelligent dual-mode display
Philips 3D Solutions offers an autostereoscopic 3D display family, for professional applications, that provides today's best 3D viewing experiences by using WOWvx technologies. The slanted multi-view lenticular lens technology affords full brightness and full contrast and allows multiple users to view 3D content at the same time. Moreover, a true color representation is ensured by the lenticular lens technology. The display is based on a high resolution panel and thus enables great picture quality in 2D and 3D mode. Integrated advanced display signal-processing offers content creators and end-users full control over the quality and depth-effect characteristics of the picture. The flexible 3D data format, in the form of 2D-plus-Depth, allows easy creation or adaptation of applications and content for the display.

The 20" 3D display is designed for narrowcasting, point-of-sale advertising, games and 3D visualization applications. Moreover, Philips can supply the 42-inch WOW for astonishing 3D viewing.

3D system solution
The displays can be applied in a broad range of applications, since it can be operated in both 2D and 3D mode. The system solution is designed for maximum reuse of content/concepts from the 2D world. The key enabler for this is the flexible 2D-plus-Depth format that allows decoupling of content creation and content visualization. This allows applications where different 3D display screen sizes and designs can be applied in the same system. The 3D display selects the best way to visualize the 3D content.

Philips autostereoscopic 3D displays support the unique Declipse image format. The Declipse image format enables a true look-around effect along with the 3D visualization. Furthermore, easy creation of 3D overlays is provided by applying the Declipse format.

3D content visualization
The 2D-plus-depth format is compatible with existing compression tools, where the additional bandwidth of the depth is small. The 3DS Media Player is provided with a 3D display to show the 3D content. The actual 3D content can be created via a plug-in available for popular 3D animation software packages, that allows existing and new content to be exported in this format.

There are many digital signage or narrowcasting software solutions in which the 3DS Media Player can be integrated easily. However, for smaller systems the 3DS Media Sequencer available offers a way to create XML based play lists that can be supported with an HTML based user interface design for infotainment applications.

In addition to real-time and offline content creation tools, there are also many applications that operate on a 3D dataset. Most of these applications, such as games, design, etc. use the OpenGL or DirectX API. The WOWvx OpenGL Control support real-time extraction and usage of the depth information and thus real-time visualization on the 3D display.

3D Intelligent Display Solution

42" Comfort
42" WOW
3D & 2D dual-mode displays

WOWvx

42-3D6C01/00
42-3D6W01/00

Stunning 3D viewing

Spectacle without spectacles

Bring your content alive with the Philips 3D intelligent displays. Based on WOWvx technology, its astonishing 'real' 3D effect immediately grabs the attention of the viewer. If you want to make an unforgettable first impression a Philips 42" 3D display is the right choice for you.

Exciting out-of-screen 3D effects
- Immediately grabs the attention of the viewer

Autostereoscopic display
- No need for special 3D glasses
- Multiple users experience 3D at the same time
- Large 3D viewing zone

Multi-view lenticular technology
- Full brightness and full contrast
- True color representation

High quality 3D and 2D mode
- 2D high-definition video playback
- Autosensing between 2D and 3D mode

End-to-end system solution
- From content creation to visualization
- Integrated intelligent signal processing
- Flexible 3D data format through 2D-plus-depth
- 3D application performance and distribution bandwidth close to 2D

3D content enabling products (optional)
- OpenGL Vizualizer and Control
- Real-time stereoscopic video to 3D conversion
- Plugin-ins for popular 3D animation software available
- Semi-automatic 2D to 3D conversion post-processing software

42 inch 3D display types available
- 42-3D6C01 Comfort for a 3D experience with maximum comfort
- 42-3D6W01 WOW for enhanced 3D depth performance

42-inch 3D Intelligent Display Solution

42-3D6C01/00
42-3D6W01/00

Technical Specifications

Multi-view Lenticular Display
- Autostereoscopic 3D display: 9 view
- 3D Technology: fixed lenticular
- Optimal viewing distance: 3 meters
- 3D perception: wide comfort zone
- Image diameter: 42 inch (107 cm)
- Resolution: 1,920 x 1,080 x RGB (HD)
- Aspect ratio: 16 : 9
- Display colors: 16.7 M colors
- Brightness: 460 cd/m2
- Contrast: 1000:1
- Response time: 8 ms
- Input format: 2D-plus-depth in 3D mode
- Front screen protection: Protective sheet

Connectivity
- Video input:
  - DVI-D single link
  - 60 Hz, 1920 x 1080 p
- Monitor control via DDC/CI channel; no additional RS232 cable needed
- Power supply: 120 V 60 Hz, 230V 50 Hz
- Power consumption:
  - Normal operation: 230 W
  - Standby: 2.5 W
- AC switch
- LED indicator: power on and standby mode

Physical Characteristics
- Dimensions(mm): 1017(W) x 610(H) x 128(D)
- Weight excluding table stand:
  - 42-3D6C01: 26.5 kg
  - 42-3D6W01: 29.5 kg
- Mounting: VESA
- Includes: table stand and power and DVI cable

Certification
CE/cETLus/FCC certified, CB certificate

Convenience features
- Universal power supply
- Table stand
- Wall mounting option

Advanced display signal processing
- Integrated 2D/3D display processing hardware
- 3D data interface
- 2D-plus-depth converted to 9 different views and interwoven into a 3D image
- Rendering algorithm is tuned for lenticular optical behavior
- Two modes:
  - 3D rendering mode
  - 2D mode with picture quality improvement

Display Control Tool
The Display Control Tool, running on the PC, offers real-time control of the following monitor functions:
- WOW offset
- WOW range
- Contrast
- Brightness
- Visualization parameters:
  - Smooth or Raw visualization
  - Clear Edge

3DS Media Player
The 3DS Media Player is an application to play 3D video clips in the 2D-plus-depth format on a PC. The 3DS Media Player ensures that the monitor switches to 3D mode with the appropriate settings.

optional wall mount bracket

Product highlights

3D intelligent dual-mode display

Philips 3D Solutions offers a 42" autostereoscopic 3D display family, for professional applications, that provides today's best 3D viewing experiences by using WOWvx technologies. The slanted multi-view lenticular lens technology affords full brightness and full contrast and allows multiple users to view 3D content at the same time, within a large comfort zone. Moreover, a true color representation is ensured by the lenticular lens technology. The display is based on a high definition panel and thus enables great picture quality in 2D and 3D mode. Integrated advanced display signal-processing offers content creators and end-users full control over the quality and depth-effect characteristics of the picture. Furthermore, a flexible 3D data format, in the form of 2D-plus-depth, allows easy creation or adaptation of applications and content for the display.

The 42-3D6C01 Comfort type is designed for applications that require a natural 3D experience with maximum comfort. The 42-3D6W01 WOW type includes a new lens design based to enable even more exciting out-of-screen 3D effects.

3D system solution

The displays can be applied in a broad range of applications, since it can be operated in both 2D and 3D mode. The system solution is designed for maximum reuse of content/concepts from the 2D world. The key enabler for this is the flexible 2D-plus-depth format, that allows decoupling of content creation and content visualization. This allows applications where different 3D display screen sizes and designs can be applied in the same system. The 3D display selects the best way to visualize the 3D content.

3D content visualization

The 2D-plus-depth format is compatible with existing compression tools, where the additional bandwidth of the depth is small. The 3DS Media Player is provided with a 3D display to show the 3D content. The actual 3D content can be created via a plug-in available for popular 3D animation software packages, that allows existing and new content to be exported in this format.

There are many Digital Signage or Narrow casting software solutions in which the 3DS Media Player can be integrated easily. However, for smaller systems the 3DS Media Sequencer available offers a way to create XML based play lists that can be supported with an HTML based user interface design for infotainment applications.

In addition to real-time and offline content creation tools, there are also many applications that operate on a 3D dataset. Most of these applications, such as games, design, etc. use the OpenGL or DirectX API. The OpenGL WOWvx Visualizer and OpenGL WOWvx Control support real-time extraction and usage of the depth information and thus real-time visualization on the 3D display.

A Display Control Tool is provided that allows setting of depth parameters and detailed visualization parameters for the display.

PHILIPS WOWzone

Product Highlights

The WOWzone is a 132 inch (335 cm) multi-screen 3D wall, designed to grab people's attention with stunning 3D multimedia presentations. Marketing professionals can use this eye catcher to increase brand and product awareness in larger public spaces at events, exhibitions, reception areas and theme parks.

The out-of-screen 3D effects fascinate viewers and hold their attention for longer than standard 2D images, making 3D a valuable marketing tool. No glasses are needed to view the Philips 3D WOWzone which gives marketeers an element of surprise, leaving their target audience with an entertaining 3D multimedia experience.

Philips WOWzone multi-screen 3D wall consists of nine 42-inch Philips 3D displays in a 3x3 display set-up. The viewers become part of the action in the huge immersive 3 x 2 metres 3D experience space: the WOWzone. The WOWzone creates a new breed of high-impact 3D multimedia presentations in a flexible configuration as one single large 3D display or by displaying dedicated content on the individual screens.

DS Vision 3000

DIGITAL SIGNAGE DISTRIBUTION SYSTEMS

The ultimate in player-to-screen distribution and control

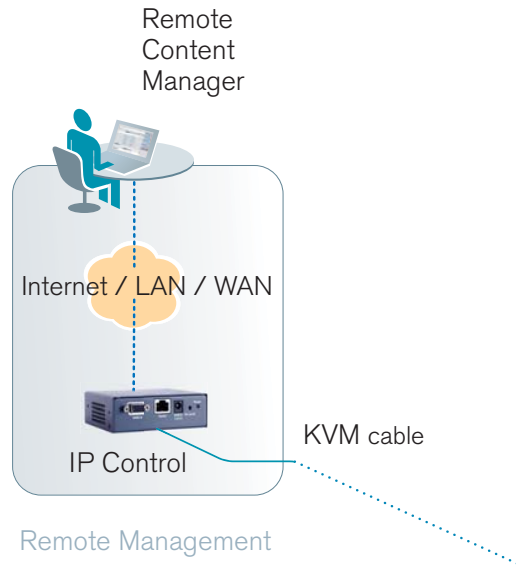
The test of any digital signage network

is whether it can deliver rich multimedia content from player to distant screens while maintaining perfect image and sound quality, every time.

The leading solution in real-time multimedia delivery, DS Vision 3000 distributes high-definition video and stereo-audio from a single player, over CAT5/6/7 cable, to multiple plasma or LCD screens located up to 600m/2000ft away.

As a long-range system the DS Vision is ideal for distributing multimedia content in:

- **Shopping centers**
- **Transportation hubs**
- **Hotels/restaurants/clubs**
- **Educational facilities**
- **Corporate environments**



Boost exposure while reducing equipment costs

Multiply the number of screens carrying your message without adding additional players. Instead of multiple players each with their own software, transmit your message from a single player to up to hundreds of screens.

- Lower your software & content licensing
- Eliminate unnecessary hardware
- Simplify maintenance by servicing a single player instead of dozens

The DS Vision packs a 3-in-1 punch – audio and video broadcasting and serial management channels all in one box. Broadcasting is in high definition video at 1080p, 1920x1200@60Hz. And a DDC protocol optimizes player-screen interaction for the best visual experience.

Any configuration

The DS Vision supports any installation configuration from star to daisy chain. With the Dual Cascade Receiver unit you can even broadcast to two back-to-back screens using a single receiver while still controlling each screen separately.

The freedom to put screens where you want and players where you need them

The DS Vision distributes multimedia content over 600m/2000ft allowing you to:

- Place your screens wherever you want, in the most optimal locations to achieve the widest public coverage and reach the most customers
- Place your players out of sight and out of harms way where they can easily be used, serviced and maintained

Double your screen life

The only system on the market to include fully bi-directional RS-232 communication, DS Vision enables you to not only send a command but also query the screen and get a response.

- Remotely view screen status instead of walking from screen to screen
- Remotely turn screens on/off
- Remotely monitor screen operation time. You'll prevent overheating and double or triple screen life
- Remotely increase volume and brightness
- Connect and extend serial devices such as touch screens

Superior management

Take full control of your digital signage network with the industry's only "last mile" GUI based management program. Now you can manage not only your content but also your screens.

- Advanced GUI - The simple intuitive functionality will have you controlling the system before even opening the manual
- Individual Screen Name Tagging - Quickly & easily identify individual screens in multi-screen networks
- Auto-Detect - Obtain full topology reports instantly
- Grouping - Categorize your screens by group and with a click of the mouse perform an action on dozens of screens simultaneously
- At closing time shut indoor screens while leaving outdoor screens running to continue advertising to passerby's on the street. You'll reduce screen running expenses and extend screen life
- Darken all malfunctioning screens instead of leaving a blue screen during maintenance

Accelerated installation via export settings

Reduce and simplify your installation time with the system's Save Configuration Settings function.

- Configure before installation so you are up and running as soon as screens are installed
- After installation export your configuration settings to other similar locations (i.e. store branches)
- Saving Configuration Settings also enables faster system recovery and easier system maintenance

Overall single system control

DS Vision's open protocol can be integrated with your current management system so you can control all your Digital Signage equipment from a single management system.

Simplify tuning with digital skew export

Stop walking from screen to screen to fix the image. With the digital skew function you can export skew parameters of a perfect screen to others. For tuning of preliminary screens, use the handy tuning unit – a handheld device you can operate from floor level while looking at the screen.

DS Vision 3000

The most comprehensive digital signage distribution system combining:

- **600m/2000ft range**
- **Three in one transmission: video, audio, serial**
- **High definition video broadcasting**
- **Stereo audio**
- **Full player-to-screen management (RS-232)**
- **Bi-directional control**
- **User-friendly GUI**

Technical specifications

Resolution	Up to 1920x1200 @ 60Hz; 1080p (depending on cable length)
Input/Output Video Signals	Analog signal red, green, blue 0.7v p-p 75 Ohm
Sync	TTL compatible
Horizontal/Vertical Sync Polarity	Positive/Negative
System Cable	CAT5,5e,6,7 UTP/ FTP cable 2x4x24 AWG Solid Wire
Maximum Distance	600m/2000ft
Skew Compensation	Up to 63 n sec
DDC	Complies with VESA DDC-2 specification
RS-232 Connection	Full serial = RXD, TXD, DTR, DSR, RTS, CTS
Serial Baud Rate	57,600
Audio	Stereo
Operating Temperature	5°C to 40°C / 41°F to 104°F
Storage Temperature	-40°C to 70°C / -104°F to 158°F
Warranty	3 Years

8.4" modero® viewpoint touch panel

MVP PERFORMANCE

AMX MVP-8400 is the ultimate user interface, combining wireless mobility, Table Top functionality, and Wall/Flush Mount flexibility. A state-of-the-art touch panel solution at an affordable price. Together with the 7.5" Modero ViewPoint (MVP-7500), the MVPs are the most versatile AMX Touch Panels on the market today.

WIRELESS CONVENIENCE

Experience high-end control capabilities without the wires. A fully compatible standard 802.11b Wi-Fi Card provides additional control features and eliminates the inconvenience of installing and using cables. Both 38KHz and 455KHz 1-way IR are also built in. The MVP-8400 provides dealers a clean, seamless, unobtrusive touch panel solution. For end users, the ability to take control from anywhere, at any time.

G4 COMPUTER CONTROL™

The AMX exclusive Computer Control feature delivers remote access and control of any networked computer directly to the MVP-8400. Launch digital music on your MP3 player. Cruise the Internet. Check and respond to email. Open software files and launch applications. Anything that can be done on the PC can now be accomplished through the MVP-8400, all at the simple touch of a button.

AMX

8.4" modero viewpoint touch panel

MVP-8400 (FG5965-02)

LCD

- 8.4" Color active-matrix TFT (800 x 600 pixel resolution)
- Viewing Angle: +60° (Left to Right) +40° (Top to Bottom)
- Display colors: 256K (18-bit color depth)
- Brightness: 180 cd/m2
- Contrast: 350:1
- Anti-glare Overlay
- Aspect Ratio: 4 x 3

POWER

- Operates with 1 or 2 MVP-BP battery packs (2 included)
- 12-18 VDC Power Supply for recharging batteries

MEMORY

- 64MB RAM
- 64MB Compact Flash (upgradeable to 1GB)

DIMENSIONS (HWD)

- 7.165" x 10.474" x 1.205" (18.20 cm x 26.60 cm x 3.06 cm)

INTERFACES

- 802.11b Wireless Ethernet, 2-way network communications
- 38KHz and 455KHz IR
- Mini-USB for programming file transfer
- Docking Station Interconnect
- Power Supply, coaxial barrel connector

FRONT PANEL

- Front Buttons: 9 programmable buttons
- Speakers: 2 internal
- Microphone: Used for audio conferencing applications
- Programmable LEDs: 1 through front bezel 1 through stylus

WEIGHT

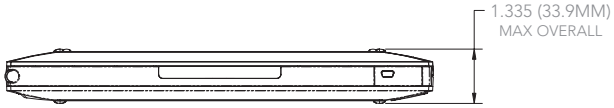
- 2.0 lbs (0.91 kg)

Included Accessories:

- (2) MVP-BP (FG5965-20)
- PS4.4 (FG423-44)
- Stylus
- Quick Start Guide

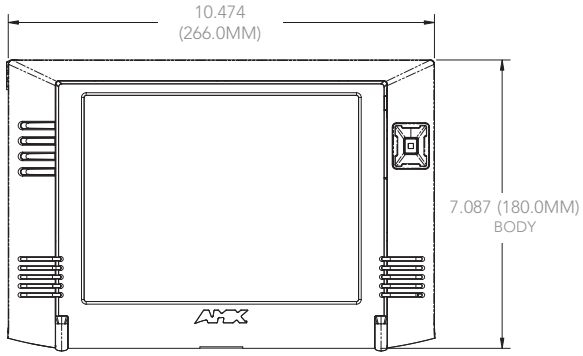
OPTIONAL ACCESSORIES

- MVP-TDS, Table Top/Tilt Docking Station (FG5965-10)
- MVP-WDS, Wall/Flush Mount Docking Station (FG5965-11)
- MVP-KS, Kickstand (FG5965-12)
- MVP-BP, Spare Battery Pack (FG5965-20)
- PS4.4, Power Supply (FG423-44)
- PSN4.4, Power Supply (FG423-45)
- MVP-STYLUS, Pack of 3 Stylus (FG5965-30)
- CB-MVPWDS, Wall/Flush Mount Docking Station

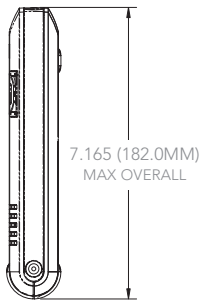


MVP-8400 (Top View)

MVP-8400 (Bottom View)



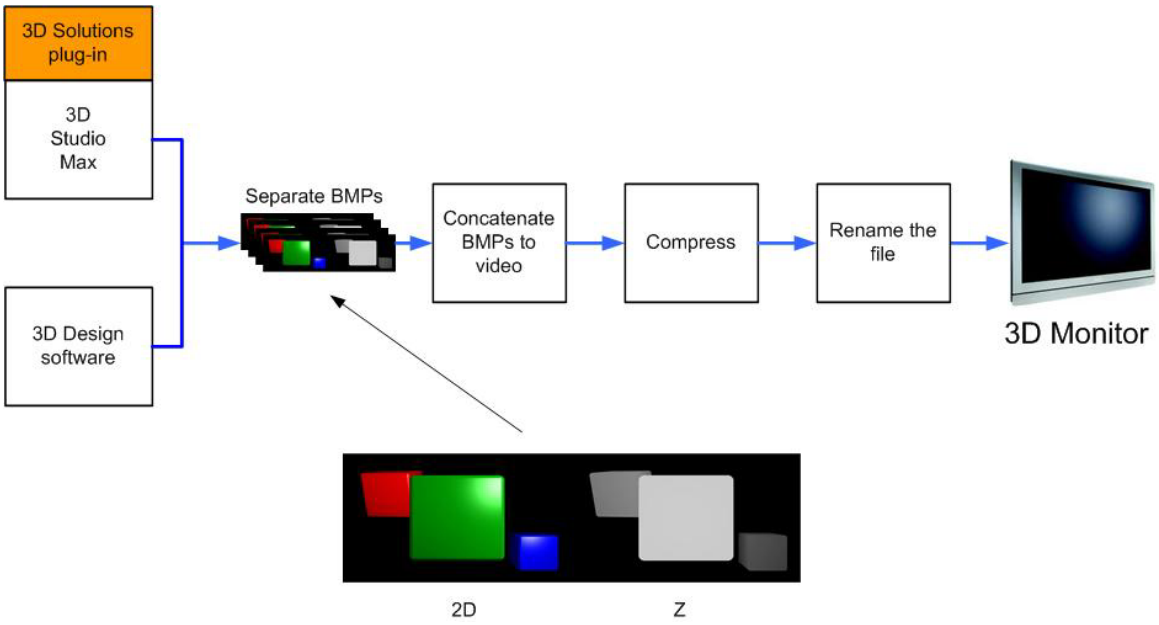
MVP-8400 (Front View)



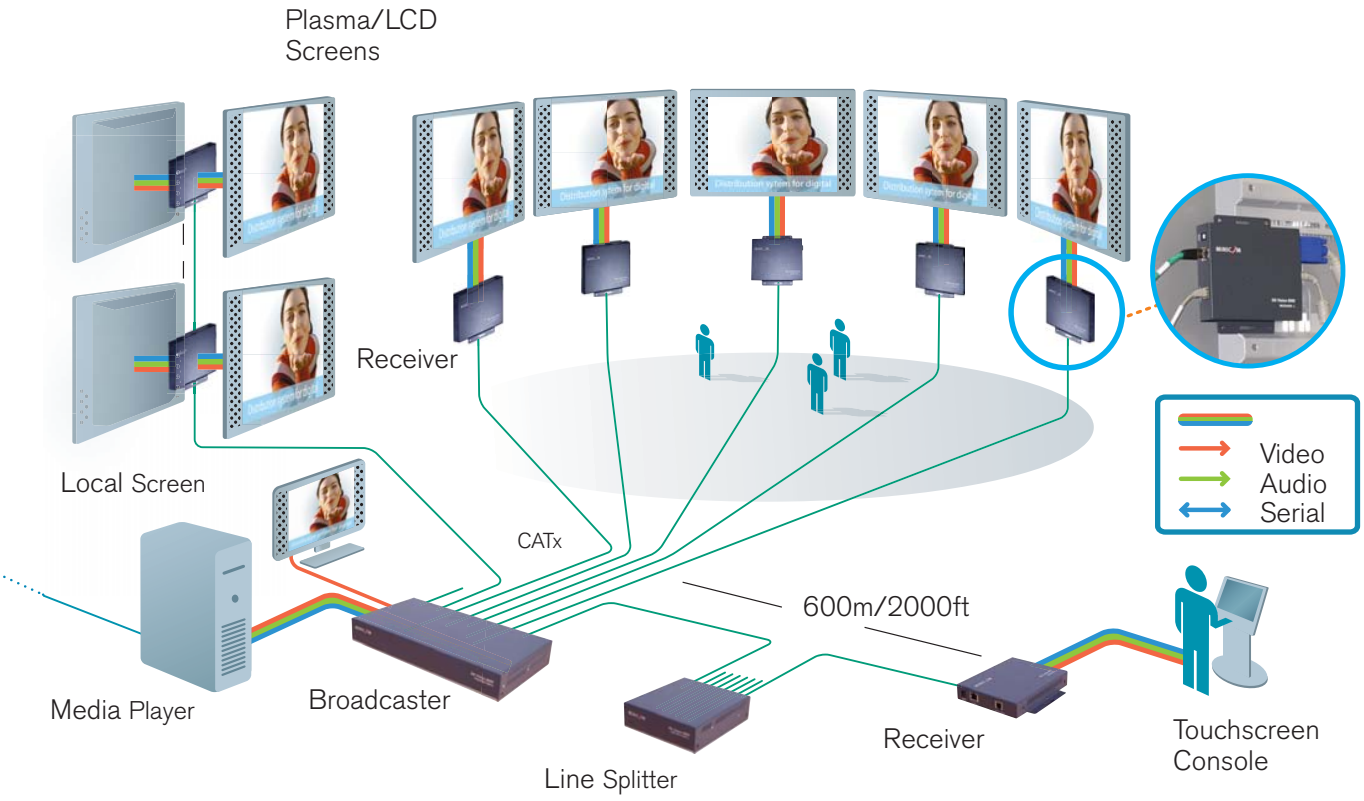
MVP-8400 (Right Side)

AMX
IT'S YOUR WORLD. TAKE CONTROL.

3D Content Creation Workflow



3D Content Distribution Diagram



Informal Cost Sheet

QTY	DESCRIPTION	MSRP/each	LINE TOTAL
	20" Philips WOWvx LCD (FRAMED)	$ 5,395.00	$ -
	20" Philips WOWvx LCD (DESK)	5,975.00	$ -
	42" Philips WOWvx LCD	12,995.00	$ -
	42" Philips Wall Mount (Fixed)	209.00	$ -
	20" Philips Wall Mount (Fixed)	109.00	$ -
	Philips WOWzone	*Available on Application*	
	AMX Controller Kit	8,950.00	$ -
	DS Vision Broadcaster (up to 8 screens)	690.00	$ -
	DS Vision Broadcaster (up to 16 screens)	890.00	$ -
	DS Vision Line Splitter (Distance < 360ft)	345.00	$ -
	DS Vision Line Splitter (Distance > 360ft)	790.00	$ -
	DS Vision Receiver (Distance < 360ft)	225.00	$ -
	DS Vision Receiver (Distance > 360ft)	445.00	$ -
	Tycoon Digital Signage Software Server (Standard Up to 400 Players)	3,500.00	$ -
	Tycoon Digital Signage Software Player (Standard Up to 400 Players)	1,000.00	$ -
	PC for running content	4,500.00	$ -
	Custom Mount Design and Fabrication	*TBD*	
	Installation	*TBD*	
	Content Creation	*TBD*	
		SUBTOTAL	
		SALES TAX	
		TOTAL	

Prices are subject to change without prior notice.